## REMARKS

After the current amendment the claims remaining in the application are claims 55, 59, 60, 62-91 and 96-99. Claims 55, 59, 60 and 72-73 have been allowed.

Claims 95-99 have been rejected under the first paragraph of 35 USC § 112 as lacking description in the specification. This rejection is respectfully traversed.

In Figures 9A and 9B (see amendment to drawings herein) and in the specification on page 44, line 20 to page 45, line 18, an experiment is disclosed, wherein one aliquot of *B. vulgaris* cells had been exposed to control medium and another aliquot of *B. vulgaris* cells had been exposed to control medium supplemented with 125 mM NaCl. Twenty-four hours after the transformation of the cells of both aliquots with a DNA construct comprising the isolated *B. vulgaris* V-ATPase subunit c, isoform 2 promoter, operatively linked with a heterologous luciferase gene, the luciferase activity was determined. The luciferase activity for the aliquot of cells exposed to control medium (without salt) was determined as 1.11 and the luciferase activity for the aliquot of cells exposed to control medium supplemented with 125 mM NaCl was determined as 2.17. This experiment clearly proves that the incubation of *B. vulgaris* cells in a medium containing 125 mM NaCl for 24 hours (which corresponds to "salt stress" conditions) leads to an approximately 2-fold increase of the expression of a heterologous gene that is controlled by the *B. vulgaris* V-ATPase promoter, subunit c, isoform 2 (here luciferase). Thus, the specification unambiguously discloses the strong effect of salt stress on the function of the isolated *B. vulgaris* V-ATPase subunit c,

isoform 2 promoter. Additionally, the specification (in particular on page 44, line 20 to page 45, line 18) provides sufficient guidance for a person skilled in the art with respect to which stress to employ ("addition of NaCl to the cell medium") and with respect to how much stress to employ ("125 mM NaCl for 24 hours") in order to upregulate the expression of the heterologous gene of the DNA construct. Thus, claims 95-99 should clearly meet the "enablement requirement" under 35 USC § 112, first paragraph.

The examiner's requirement for a "representative number of species" falling within the scope of the claimed genus of plant cells, protoplasts, and plants" is not supported by any specific reasons. There is a burden on the examiner to present reasons to doubt the objective truth of the generic statements throughout the specification. *In re Marzocchi*, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971).

The present specification enables the practice of a broad invention. Broad inventions can be defined only by broad claims. It is not incumbent on an applicant who has made a broad process invention and supported it by an adequately broad disclosure to demonstrate the operativeness of every substance falling within the scope of the broad claims to which he is entitled. The research to do this would quite evidently be endless. *In re Sarett*, 327 F.2d 1005, 140 USPQ 474, 486 (CCPA 1964).

Claims 74-89 and 95-99 have been rejected under the first paragraph of 35 USC § 112 for lack of enablement. This rejection is respectfully traversed.

Claims 74-89 and 95-99 are all dependent on the previously amended claim 55, which, after the present amendment, is specifically directed to DNA constructs

comprising the *B. vulgaris* promoter subunit c, isoform 2, operatively linked with a heterologous gene. Specific examples of DNA constructs comprising promoters other than the *B. vulgaris* promoter subunit c, isoform 2, should not be required. Any such additional promoters which interfered with the function of the recited promoter would not come within the claims because they would be considered inoperative species. It is not the function of the claims to specifically exclude impossible or inoperative species. *In re Anderson*, 471 F.2d 1237, 1242, 176 USPQ 331, 334-35 (CCPA 1973). The generic concept of additional promoters is disclosed in the original specification at page 6, lines 19-26.

*In re Marzocchi, supra* and *In re Anderson, supra*, are relevant to this rejection also.

The examiner has set forth no reasons to doubt the generic disclosure and has suggested no specific additional promoters that would interfere with the function of the recited promoter. Also, the examiner has suggested no claim amendment which in his opinion would overcome this rejection. See MPEP § 2173.02.

Claims 90, 91-93 and 95 have been rejected under 35 USC § 112, second paragraph, as being incomplete for omitting essential steps, presumably giving rise to indefiniteness. This rejection is also traversed.

The examiner has provided no authority for his apparent position that all of the steps of a claimed process are required to be recited.

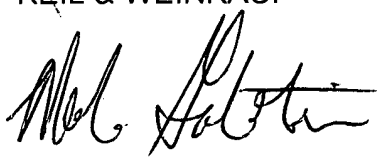
At any rate, to further prosecution of the application the relevant claims have

been amended to include the steps of transforming and expressing. It is considered that the examiner will accept the claims as now drafted as overcoming the prior rejection.

In light of the foregoing amendments and remarks, it is believed that all rejections of record have been obviated and allowance of this application is respectfully requested.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,
KEIL & WEINKAUF



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***DRAWING AMENDMENT***

Add to the drawing pages in the present specification the attached page with Figs. 9A and 9B, which may inadvertently have been missing from the drawings filed with the application.

***COMPLETE LISTING OF ALL CLAIMS IN THE APPLICATION***

1-54 (canceled).

55. (allowed) A DNA construct comprising the promoter of the *B. vulgaris* V-ATPase subunit c in isoform 2 (SEQ ID NO:1), operatively linked with a heterologous gene.

56-58 (canceled).

59. (allowed) The DNA construct as claimed in claim 55, which additionally comprises a second promoter which can be regulated in a different manner than the first promoter.

60. (allowed) The DNA construct as claimed in claim 55, which is an expression cassette.

61. (canceled)

62. (allowed) A polynucleotide comprising the sequence of the promoter of *B. vulgaris* V-ATPase subunit c isoform 2 set forth in SEQ ID NO: 1 ~~or the functional equivalent of this promoter~~.

63. (allowed) A recombinant vector which additionally comprises the construct as claimed in claim 55.

64. (allowed) The recombinant vector as claimed in claim 63 ~~64~~, which is a shuttle vector.

65. (allowed) The recombinant vector as claimed in claim 63 ~~64~~, which is an expression vector.

66. (allowed) A microorganism which is transformed with the recombinant vector as claimed in claim 63 ~~64~~.

67. (allowed) A transgenic plant cell or transgenic protoplast whose genome encompasses the DNA construct as claimed in claim 55.

68. (allowed) The transgenic plant cell or transgenic protoplast as claimed in claim 67 ~~68~~ obtained from a monocotyledonous plant.

69. (allowed) The transgenic plant cell or transgenic protoplast as claimed in claim 67 ~~68~~ obtained from a dicotyledonous plant.

70. (allowed) The transgenic plant whose genome additionally comprises the construct as claimed in claim 55.

71. (allowed) The transgenic plant as claimed in claim 70 ~~71~~, which is a monocotyledonous plant.

72. (allowed) The transgenic plant as claimed in claim 70 ~~71~~, which is a dicotyledonous plant.

73. (allowed) The transgenic plant as claimed in claim 70 ~~71~~, which is sugar beet, tobacco, barley, rice, potato, sunflower, soya, tomato, *Canola*, wheat, oilseed rape, sorghum, carrot, maize, *Mesemranthemum crystallinum* or *Arabidopsis thalinana*.

74. (previously presented) A method for the expression of a heterologous gene, in a plant cell or a protoplast, which comprises transforming the cell or the protoplast with the DNA construct as claimed in claim 55 and subsequently exposing the

transformed cell or the protoplast to a stress that controls the expression of the heterologous gene, which has been introduced by means of the DNA construct.

75. (previously presented) The method as claimed in claim 74, wherein the plant cell or the protoplast is obtained from a monocotyledonous plant.

76. (previously presented) The method as claimed in claim 74, wherein the plant cell or the protoplast is obtained from a dicotyledonous plant.

77. (previously presented) The method as claimed in claim 74, wherein the plant cell or the protoplast is obtained from sugar beet, tobacco, barley, rice, potatoes, sunflowers, soya, tomatoes, *Canola*, wheat, oilseed rape, sorghum, carrots, maize, *Mesembranthemum crystallinum* or *Arabidopsis thalinana*.

78. (previously presented) A method for the expression of a heterologous gene in a plant, which comprises regenerating cells or protoplasts transformed with the DNA construct as claimed in claim 55 to produce a transgenic plant and subsequently exposing the plant transformed in this way to a stress that controls the expression of the heterologous gene which has been introduced by means of the DNA construct.

79. (previously presented) The method as claimed in claim 78, wherein the transgenic plant is a monocotyledonous plant.

80. (previously presented) The method as claimed in claim 78, wherein the transgenic plant is a dicotyledonous plant.

81. (previously presented) The method as claimed in claim 78, wherein the transgenic

plant is sugar beet, tobacco, barley, rice, potatoes, sunflowers, soya, tomatoes, *Canola*, wheat, oilseed rape, sorghum, carrots, maize, *Mesembranthemum crystallinum* or *Arabidopsis thalinana*.

82. (previously presented) A method for producing a recombinant protein, which comprises transforming a plant cell or a protoplast with the DNA construct as claimed in claim 55 and subsequently exposing the transformed cell or the protoplast to a stress which causes the DNA-construct to express the recombinant protein.

83. (previously presented) The method as claimed in claim 82, wherein the plant cell or the protoplast is obtained from a monocotyledonous plant.

84. (previously presented) The method as claimed in claim 82, wherein the plant cell or the protoplast is obtained from dicotyledonous plant.

85. (previously presented) The method as claimed in claim 82, wherein the plant cell or the protoplast is obtained from sugar beet, tobacco, barley, rice, potatoes, sunflowers, soya, tomatoes, *Canola*, wheat, oilseed rape, sorghum, carrots, maize, *Mesembranthemum crystallinum* or *Arabidopsis thalinana*.

86. (previously presented) A method of producing a recombinant protein in a plant, which comprises regenerating cells or protoplasts transformed with a DNA construct as claimed in claim 55 to produce a transgenic plant and subsequently exposing the resulting transgenic plant to a stress which causes the DNA-construct to express the recombinant protein.

87. (previously presented) The method as claimed in claim 86, wherein the transgenic plant is a monocotyledonous plant.

88. (previously presented) The method as claimed in claim 86, wherein the transgenic plant is a dicotyledonous plant.

89. (previously presented) The method as claimed in claim 86, wherein the transgenic plant is obtained from sugar beet, tobacco, barley, rice, potatoes, sunflowers, soya, tomatoes, *Canola*, wheat, oilseed rape, sorghum, carrots, maize, *Mesembranthemum crystallinum* or *Arabidopsis thalinana*.

90. (currently amended) A method of producing a recombinant protein in a plant cell or a protoplast comprising the ~~step of expressing~~ steps of transforming said plant cell or protoplast with the DNA construct as claimed in claim 55 and of expressing said DNA construct in those plant cells or protoplasts, wherein the recombinant protein is produced by means of said DNA construct.

91. (currently amended) A method of producing a recombinant protein in a plant comprising the step of transforming said plant with the DNA construct as claimed in claim 55, and of expressing said DNA construct in the plant, wherein the recombinant protein is produced by means of said DNA construct.

92. (canceled)

93. (canceled)

94. (canceled)

95. (previously presented) The method as claimed in claim 93, wherein at least one

further pyrimidine stretch is inserted into the promoter.

96. (previously presented) A plant cell or protoplast, which plant cell or protoplast is transformed with the DNA construct as claimed in claim 55 and is resistant to stress, as a result of the expression of the DNA construct.

97. (previously presented) A plant cell or protoplast, which plant cell or protoplast is transformed with the DNA construct as claimed in claim 55 and is resistant to salt stress, as a result of the expression of the DNA construct.

98. (previously presented) A plant which is transformed with the DNA construct as claimed in claim 55 and which is resistant to stress, as a result of the expression of the DNA construct.

99. (previously presented) The plant which is transformed with a DNA construct as claimed in claim 55 and which is resistant to salt stress, as a result of the expression of the DNA construct.

100. (canceled)